

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 62138WO (499)	FOR FURTHER ACTION <div style="display: flex; justify-content: space-between; font-size: small;"> see Form PCT/ISA/220 as well as, where applicable, item 5 below. </div>	
International application No. PCT/US04/31532	International filing date (<i>day/month/year</i>) 24 September 2004 (24.09.2004)	(Earliest) Priority Date (<i>day/month/year</i>) 24 September 2003 (24.09.2003)
Applicant BIOXELL, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the Report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).



- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2.



Certain claims were found unsearchable (See Box No. II)

3.



Unity of invention is lacking (See Box No. III)

4.

With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5.

With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6.

With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. _____



as suggested by the applicant.



as selected by this Authority, because the applicant failed to suggest a figure.



as selected by this Authority, because this figure better characterizes the invention.



- b. none of the figures is to be published with the abstract.

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1,5,6 and 9-22
because they relate to subject matter not required to be searched by this Authority, namely:
Please See Continuation Sheet
2. ☒ Claims Nos.: 3 and 4
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Please See Continuation Sheet
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

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International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 31/59; C07C 401/00

US CL : 514/167; 552/653

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/167; 552/653

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,566,353 B2 (BISHOP et al) 20 May 2003 (20.05.2003), see the entire document, especially lines 52-67 in col. 2, lines 1-65 in col. 3, examples, and claims.	2, 7, 8

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

10 December 2004 (10.12.2004)

Date of mailing of the international search report

10 FEB 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US

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Box II Observations where certain claims were found unsearchable 1. because they relate to subject matter not required to be searched by this Authority, namely:

Claims 1, 5, 6, and 9-22 objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because claims 1, 5, 6, and 9-22 are indefinite for the following reason(s):

Claims 1, 5, 6, and 9-22 are objected to because the term "use of" is improper. There are no steps in the method claims.

Continuation of Box II Reason 2:

Claims 3 and 4 objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because claims 3 and 4 are indefinite for the following reason(s):

Claims 3 and 4 are objected to because no meaningful search can be carried out. There are no steps for the method claims on how to obtain and/or synthesize vitamin D3 compounds.

Continuation of B. FIELDS SEARCHED Item 3:

STN, HCAPLUS, HCAOLD, REGISTRY, USPATFULL, INTERNET VIA A9.com, STN STRUCTURE SEARCH, MARPAT